BLM

U.S. Department of the Interior
Bureau of Land Management

Environmental Assessment

Cowhead Gravel Pit Renewal
DOI-BLM-CA-N070-2012-0206-EA

April 2nd, 2013

PREPARING OFFICE

U.S. Department of the Interior
Bureau of Land Management
Surprise Field Office
602 Cressler Street
Cedarville, CA 96104 USA
530–279–6101
530–279–2171

Environmental Assessment
Cowhead Gravel Pit Renewal
DOI-BLM-CA-N070-2012-0206-EA

April 2nd, 2013

This page intentionally
left blank

Table of Contents

List of Tables

This page intentionally
left blank

Chapter 1. Introduction

This page intentionally
left blank

1.1. Identifying Information:

The Modoc County Road Department has mined gravel from the Cowhead Gravel Pit for many years. The Cowhead Pit is on public lands and the mining operations were authorized under a free use permit issued by BLM to the County. The mined gravel has been used to maintain graveled County roads in the Cowhead area of Modoc County. The EA is a site-specific analysis of potential impacts that could result with the implementation of the alternatives. The EA assists the Bureau of Land Management (BLM) in project planning and ensuring compliance with the National Environmental Policy Act (NEPA), and with other laws and policies affecting the alternatives. If the decision maker determines that this project has "significant" impacts following the analysis in the EA, then an Environmental Impact Statement (EIS) will be prepared for the project. If not, a Finding of No Significant Impact (FONSI) statement will be prepared, documenting the reasons why implementation of the selected alternative would not result in "significant" environmental impacts.

The Cowhead Gravel Pit is located within Modoc County, California, approximately 8 miles northeast of Fort Bidwell, California:

Mount Diablo Meridian

T. 47 N., R. 17 E., Sec. 19, SW1/4.

1.1.1. Background:

The Cowhead Gravel pit is an open pit gravel mine that has been operated by Modoc County Road Department (MCRD) and BLM since the early 1970's. MCRD is a permittee that has received multiple 10 year Free-Use permits from BLM since the pit was established. BLM also has a Community Pit authorization on this pit for material sales to the general public. The existing disturbance currently covers approximately five acres. MCRD applied to expand for another additional acre. Topsoil at the pit is minimal and has been stockpiled along the perimeter of the disturbed area. The disturbed portion of the pit is bare of vegetation. An environmental assessment was completed by the BLM in 1999 for the same pit which resulted in the issuance of a ten year Free-Use Permit.

1.1.2. Purpose and Need for the Action

The purpose of the proposed action is for BLM to issue a 10 year Free-Use Permit to Modoc County to allow for the continued use of one gravel pit on public lands in northeastern California. The Free-Use Permit is needed by Modoc County for the extraction of materials (gravel) for the ongoing maintenance of existing county roads in the area.

The need for this Environmental Assessment (EA) is to disclose and analyze the environmental consequences of renewing a Free-Use Gravel pit to Modoc County as required by NEPA and other laws, regulations and policies. The need for this action is to respond to Modoc County's request to renew a 10 year Free-Use Permit for the extraction of gravel on public lands.

1.1.3. Decision to be Made

This EA discloses the environmental consequences of implementing the Proposed Action or an alternative to that action. The FONSI describes the finding of the analysis in this EA. The BLM, Surprise Field Office Manager is the Authorized Officer. His decision and the rationale for that decision will be stated in Decision Record (DR). Based on the information provided in this EA, the Authorized Officer will decide whether to issue a Free-Use permit, or whether to reject it.

1.1.4. Scoping

The BLM Surprise Field Office conducted internal scoping with and interdisciplinary team of specialists. Consultation was held with the Fort Bidwell and Summit Lake Paiute Tribes in May 2011. This consultation resulted in no concerns.

1.1.5. Plan Conformance

The proposed action conforms to the Surprise Resource Management Plan and Record of Decision, April 2008. The proposed action has been determined to be in conformance with this plan as required by regulation (43 CFR 1610.5-3(a)).

1.1.6. Relationship to Statues, Regulations, and Plans

Cultural Resources

Under the National Historic Preservation Act the California Bureau of Land Management (BLM) has responsibility to manage cultural resources on public lands pursuant to the 1966 National Historic Preservation Act, the 1980 Rangeland Programmatic Memorandum of Agreement with the Advisory Council on Historic Places (WO IM 80-369), the 1997 Programmatic Agreement Among the BLM, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers Regarding the Manner in Which BLM Will Meet Its Responsibilities**,** and the primary agreement, which dictates how the BLM in California will meet its responsibilities under the above Statues and Regulations, the 2007 State Protocol Agreement among the California State Director of the BLM, the California State Historic Preservation Officer, and the Nevada State Historic Preservation Officer.

Chapter 2. Proposed Action and Alternatives

This page intentionally
left blank

2.1. Description of the Proposed Action:

The proposed action is to issue a Free-Use Permit to Modoc County for the use of the Cowhead Gravel Pit on BLM lands in T. 47N., R. 17 E., section 19, SW1/4. The Free-Use Permit would allow the county to mine and extract material from the Cowhead pit on six acres for a 10-year term. Cowhead is currently operated by the BLM as a community pit. Modoc County has held a free use permit for the past 30 years but the current permit is expired.

Future mining operation in the pit is scheduled for 10 years. Total projected extraction is 50,000 yards over the next 10 years. All hauling will occur on County maintained roads. The mining plan is to continually remove material from stockpiles located within the pit boundaries. Replenishment of the stockpiles will occur throughout the year as needed, generally between the months of April and November. The pits will be mined by processing material from the walls of the pit, generally working in a north and easterly direction. Excavation at this pit will remain at least 75 feet from the intermittent drainage that lies to the northwest of the pit. Prior to expansion, the topsoil will be removed and stored on the pit boundaries. As excavation continues, the sides of the pits will be sloped at not greater than 3:1 horizontal to vertical.

The material will be processed by excavating the material in place in the pit, and when necessary, passing it through a portable crusher and screen to produce road base gravel or chips, after which it will be stockpiled. There will be no explosives used at this pit.

The pit would be renewed for the existing five acres under the previous free-use permit that Modoc County held. The pit would also expand south one acre for future mining. (See Map)

2.2. Alternative 1

The Free-Use permit described in the Proposed Action Alternative would be issued, however, the pit expansion would not occur. The pit would be operated in the current existing disturbance area of five acres.

2.3. Alternative 2 – No Action

Under the no action alternative, the proposed Free-Use permit would not be issued to the county and the pit would remain as a BLM Community Pit. The county would not be authorized to use the gravel pit and would have to acquire gravel at another location.

[Describe other alternatives that were considered but not analyzed here.]

This page intentionally
left blank

Chapter 3. ENVIRONMENTAL ANALYSIS

This page intentionally
left blank

The affected environment is described below followed by the environmental consequences for each resource.

To comply with the National Environmental Policy Act, the following elements of the human environment (Supplemental Authorities) are subject to requirements specified in statute, regulation or executive order and must be considered.

Table 3.1.

Supplemental Authorities	Present	Not Present	Affected	Rationale
Air Quality	x		x	Section 3.1
Areas of Critical Environmental Concern (ACEC's)		x		Not present.
Cultural Resources		x		Section 3.2
Paleontology	x			Section 3.2
Environmental Justice		x		Not affected.
Floodplains		x		Resource not present.
Global Climate Change	x		x	Emissions of greenhouse gases from the infrequent and short-term operation of motor vehicles and motorized equipment would have immeasurable effects on global climate change.
Invasive, Nonnative Species	x		x	Section 3.3
Migratory Birds	x		x	Section 3.3
Native American Religious Concerns	x		x	Section 3.4
Prime or Unique Farmlands		x		Resource not present.
Threatened & Endangered Species		x		No species occur within or near the project area.
Wastes, Hazardous or Solid		x		Not present. The permit requires that any wastes created during operation be removed prior to periods of non-operation.
Water Quality (Surface/Ground)		x		No surface or ground water would be affected.
Wetlands and Riparian Zones		x		No wetland or riparian zones would be affected.

Wild and Scenic Rivers		x		Resource not present.
Wilderness		x		No designated wilderness or WSAs occur within the vicinity of the project

In addition to the require elements described above (Supplemental Authorities) the Interdisciplinary Team considered the following resources and uses.

Table 3.2.

Resource or Use	Present	Not Present	Affected	Rationale
Livestock Grazing	x			The location of the project site is within a livestock grazing allotment, but due to the lack of palatable vegetation and distance to water, there would be no impact on livestock grazing.
Recreation	x			Recreational target shooting does occur on the parcel but is not adversely affected.
Soils	x		x	Section 3.5
Socio-Economics	x		x	Section 3.6
Special Status Species		x		No special status plant or animal species are known from the project location or surrounding area.
Vegetation	x		x	Section 3.7
Visual Resources	x		x	Section 3.8
Wild Horses		x		Not Present
Wildlife	x		x	Section 3.9

3.1. Air Quality

A. Affected Environment

Surprise Valley is located in the Northeast Plateau Air Basin as designated by the California Air Resources Board (CARB). There is no designated air quality monitoring station in the Valley. Within the Air Basin, the primary air quality concern is particulates (PM10) associated with dust. Data from CARB related to non-attainment of PM10 standards in the Air Basin indicate that PM10 national standards were exceeded 0-1 days in a given year during the 2007-2009 period. For the same period, state PM10 standards were exceeded 0-5 days.

Air quality for the project area is generally good due to the remoteness and the limited amount of development/activity taking place within the project area. Air pollution in the region of the Action Area is predominately characterized by particulate matter (PM10) (CARB 2010), resulting from a variety of sources including fugitive dust from construction and the use of unsurfaced roads, windblown dust, vehicular and equipment emissions, and smoke from prescribed burns

and wildfires during summer months, and wood-burning stoves and furnaces used for heating during winter months.

The Cowhead Pit is on the north side of Surprise Valley. Strong dust events are common in this area during the spring through fall as strong south winds associated with frontal passage raise dust clouds from vast areas of un-vegetated dry lakebeds south of the pit location.

B. Environmental Consequences

1. Impacts of Proposed Action

Operation at Cowhead gravel pit would involve the excavation and preparation of gravel material, including rock crushing, as well as the hauling of gravel for use throughout the County. During these operations, dust (PM10) would be produced from pit activity and associated haul trips over dirt roads. Because the mining operations in the pit would be infrequent and of relatively short duration, a few weeks during the entire year, the dust production would be localized and short-term. Mining activities could potentially contribute to localized non-attainment of the PM10 ambient air quality national and state.

2. Impacts of Alternative 1

Impacts of this alternative would involve the similar effects as the proposed action however impacts would be less since the expansion would not occur. Although the county would not be able to expand they would still have operations and mining occurring in the pit.

3. Impacts of Alternative 2 – No Action

There would be no new impacts under the No Action Alternative. The pit would continue to operate as a Community pit. There would be negligible emissions of dust as gravel is loaded into pickup trucks and dump trucks on an infrequent basis.

3.2. Cultural/ Paleontological Resources

A. Affected Environment

The gravel pit permit renewal and proposed gravel pit expansion is located within Washoe County, Nevada near Fort Bidwell, California. Ethnographically, this area was part of the territory of the Northern Paiute within the territorial boundaries of the Kidütökadö band. Many members of the Kidütökadö continue to reside at the Fort Bidwell Reservation. Cultural resource inventories near the project area indicate that the area was used by prehistoric people for resource procurement activities, specifically hunting and plant processing. Lithic sources provided materials for tool manufacture. A more complete summary of the plants and animals used by the Northern Paiute that occur in and near the management area, as well as other ethnographic information, is provided in Lohse (1981). Historic resources near the project area are associated with livestock grazing activities and early homesteading, particularly trash disposal.

An archaeological reconnaissance survey was conducted in December 1981, on 60 acres of the public land at the proposed Cowhead Gravel Pit site. The field work was completed by Dr. Christopher Raven, Archaeologist for the BLM. The Cowhead Gravel pit and surrounding area were previously surveyed and no cultural resources were identified in the project area

The Surprise Field Office regularly consults with the Fort Bidwell Tribal Council, the Summit Lake Paiute Tribal Council and the Cedarville Rancheria Tribal Council about projects ongoing within the Surprise Field Office boundaries. To date there have been no concerns expressed about the proposed project.

B. Environmental Consequences

1. Impacts of Proposed Action

No archaeological sites were recorded within the six acre project area (see Raven 1981).

Operation of the pit and proposed gravel pit expansion would not create a physical change or condition that could affect known unique ethnic cultural values or restrict existing religious or sacred uses within the existing and future impact area.

There would be no impacts to cultural resources under the proposed action.

2. Impacts of Alternative 1

Not expanding the Cowhead pit would result in the same effects to cultural resources as described for the proposed action.

3. Impacts of Alternative 2 – No Action

There would be no new impacts to cultural resources associated with operation of a community pit. The pit would continue to operate within the existing disturbance footprint.

3.3. Invasive, Non-native Species

A. Affected Environment

There are no known populations of noxious weed species within the proposed permit areas. Cheatgrass, a common invasive annual grass, is present at all the pits, especially in areas where the soils have been disturbed. Hoary cress, an invasive weed, is present in many areas along roadsides within the Field Office.

B. Environmental Consequences

1. Impacts of Proposed Action

Direct operations of the Cowhead Pit would have no direct impact on the spread of noxious, non-native species. Indirectly, the use of the material by Modoc County to maintain gravel roads and shoulders of paved roads in Surprise Valley could contribute to the spread on these species through hauling of materials and grading of the spread materials in areas where these species currently exist. If noxious weeds were detected by Modoc County, they would be reported to the BLM for immediate action to suppress and eradicate the infestation. BLM would also continue to survey for noxious weeds at gravel pits. Overall, the proposed action is expected to slightly increase the potential for noxious weed invasion due to increased pit expansion.

2. Impacts of Alternative 1

Not allowing expansions on the pit would result in less indirect effects to invasive, non-native species compared to the proposed action although the potential to spread non-native species

would still exist as a result of hauling of materials and grading of the spread materials in areas throughout Modoc County.

3. Impacts of Alternative 2 – No Action

Under the No Action Alternative, Modoc County would not be authorized to remove material out of the pit and noxious weed establishment and spread through moving of materials would be slightly reduced compared to the Proposed Action. The sale of small quantities of materials to individuals and businesses would have no direct impact on the spread of noxious nonnative species. Indirectly, the use of the material could result in the spread of these materials on private lands through hauling of materials and grading of the spread materials in areas where these species currently exist.

3.4. Native American Religious Concerns

A. Affected Environment

Consultation was held with the Fort Bidwell Indian Community, Summit Lake Paiute Tribe, and Cedarville Rancheria in March 2013. These consultations resulted in no concerns expressed by the tribes.

B. Environmental Consequences

1. Impacts of Proposed Action

There would be no impacts to Native American Concerns.

2. Impacts of Alternative 1

Impacts of this alternative would involve the same effects as the proposed action.

3. Impacts of Alternative 2 – No Action

There would be no impacts to Native American Religious Concerns.

3.5. Soils

A. Affected Environment

The pits are located in a wide range of soils series, primarily loams. Soils are generally less than one foot deep to allow Modoc County to easily remove top soils and access the underlying gravel deposits. Previous gravel mining at the site has resulted in top soils being removed from 5 acres. This material was moved to areas currently outside the mining area for future reclamation.

B. Environmental Consequences

1. Impacts of Proposed Action

The proposed operation of the Cowhead pit by exclusively for County uses would occur primarily within the existing 5 acre existing disturbance footprint. During the life of the permit, an additional 1 acre of soil could be disturbed through mining operations. Top soils previously

stored and top soil salvaged from the one additional acre outside the area of active mining would continue to be held for future reclamation.

Operation of the Cowhead pit will include grading, excavation, and earth moving activities which would alter the existing topography on an additional one acre. However, compliance with SMARA and the existing reclamation plan would minimize this impact. Operation of the pit would not result in erosion and unstable soils. Reclamation would be phased and would occur in mined and abandoned portions of the pit. Reclamation will include slope stabilization, recontouring, drainage control, and revegetation. Potential erosion problems would be limited to the area of active mining and negligible due to low precipitation, high infiltration and capture of runoff water in the existing pit

2. Impacts of Alternative 1

Not allowing expansion on the pit would result in a maximum disturbance to soils of five acres. Modoc County has stripped and stockpiled soils from the presently mined area and would salvage additional topsoil as they mine areas within the previously permitted areas that have not been mined. Operation of the pit would not result in erosion and unstable soils. Reclamation would be phased and would occur in mined and abandoned portions of the pits. Reclamation would include slope stabilization, recontouring, drainage control, and revegetation. Potential erosion problems would be limited to the area of active mining and negligible due to low precipitation, high infiltration and capture of runoff water in the existing pits

3. Impacts of Alternative 2 – No Action

There would be no new impacts to soils associated with operation of a community pit. The pit would continue to operate within the existing disturbance footprint. Operation of the existing pit as a community pit would result in no new disturbance to soils. It would be expected that the local community would remove low volumes of material that would not require the pit to expand into currently undisturbed areas.

3.6. Social and Economic Values

A. Affected Environment

The Modoc County is responsible for the maintenance of most roads used by the residents and travelers in the northern portion of the County. Many of these roads are not paved. Gravel is used for road base and shoulder material for all types of roads, for surfacing materials for gravel roads. To meet their needs for gravel materials the County has historically used the Cowhead pit. Operation of the pit is based upon maintenance needs and budget priorities throughout the county. The result is that each pit is used infrequently and for a maximum of few weeks at a time.

Residents and visitors use these Modoc County maintained roads on a regular basis and depend on them to recreate, operate businesses and travel to and from residences. Pits are also used for destination areas for activities such as shooting and camping.

B. Environmental Consequences

1. Impacts of Proposed Action

Operation of Cowhead Pit would provide the County with a source of needed gravel. This gravel will be used for the maintenance of County roads, which is a beneficial public service impact. Operation of the pit would not adversely affect fire or police protection services or any schools. Haul traffic will follow County Road 1 in and out of the project site. County Road 1 could potentially suffer damage as a consequence of this traffic. However, the County will continue to maintain and repair all County roads. Paved and gravel roads would continue to be maintained to provide the residents and visitors to Surprise Valley safe roads that can be travelled at reasonable speeds.

Mining activity will generate appreciable noise levels averaging approximately 88 dBA, 50 feet from a noise source. However, noise naturally attenuates at an average rate of 6 dBA per doubling of distance from the noise source (Barksdale, 1991). The nearest sensitive receptor is over two miles to the North of the pit and would be exposed to less than 40 dBA noise. Therefore noise except within the permit area would be negligible and short-term.

2. Impacts of Alternative 1

Impacts of this alternative would involve the same effects as the proposed action.

3. Impacts of Alternative 2 – No Action

Not issuing Modoc County a 10 year permit to mine gravel from the Cowhead pit would result in several options for the County relative to maintenance of roads within Surprise Valley. Either they would need to apply for a new gravel pit in the southern portion of the valley on public or private lands or they would utilize the existing Lake City and hays canyon pit on lands owned by the County. Each option would result in increased costs to the County. Opening a new pit would require obtaining necessary state reclamation permits and free use permit from BLM if the pit was on public land. If the new pit was on private land the county would be likely to have to pay for the material removed. Hauling materials from the existing Lake City pit would result in increased transportation costs associated with increased haul distances. The pit would continue to operate as a Community pit.

3.7. Vegetation Including Special Status Species

A. Affected Environment

No special status plant species are known to occur within or adjacent to the Cowhead pit and soils within the expansion areas are not conducive for any special status species known to exist within the SFO. The potential vegetation community within the permit area is Mountain big sagebrush *(Artemisia tridentata ssp. vaseyana)* and antelope bitterbrush (*Purshia tridentata*) covering about 10-25% of the ground surface. In a natural community, perennial bunchgrasses are an important component of the vegetation. The existing vegetation in the undisturbed portion of the permit area is dominated by Mountain big sagebrush and antelope bitterbrush with native bunchgrasses and scattered cheatgrass (*Bromus tectorum*). The topsoil storage areas are mostly scattered cheatgrass.

B. Environmental Consequences

1. Impacts of Proposed Action

The proposed operation of the Cowhead pit would occur primarily within the existing 5 acre existing disturbance footprint. During the life of the permit, an additional 1 acre of vegetation

could be disturbed through mining operations. Top soil storage piles would continue to be occupied by scattered cheatgrass. A loss of up to 1 acre of native vegetation could occur under the proposed action.

Reclamation would be phased and would occur in mined and abandoned portions of the pit. Reclamation will include slope stabilization, recontouring, drainage control, and revegetation with native species.

2. Impacts of Alternative 1

Not expanding the Cowhead pit would result in nearly the same effects to vegetation as described for the proposed action except the loss of up to 1 acre of native vegetation would not occur.

3. Impacts of Alternative 2 – No Action

There would be no new impacts to vegetation associated with operation of a community pit. The pit would continue to operate within the existing disturbance footprint.

3.8. Visual Resources

BLM's Visual Resource Management (VRM) system provides a way to identify and evaluate scenic values to determine the appropriate levels of management. It also provides a way to analyze potential visual impacts and apply visual design techniques to ensure that surface-disturbing activities are in harmony with their surroundings. The VRM system is categorized as follows:

Class I Objective: To preserve the existing character of the landscape. The level of change to the characteristic landscape should be very low and must not attract attention.

Class II Objective: To retain the existing character of the landscape. The level of change to the characteristic landscape should be low.

Class III Objective: To partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate.

Class IV Objective: To provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high.

A. Affected Environment

The project location occurs in class II. Visual Resources in the Project Areas are generally associated with agriculture and open land. The south and west views include the community of Ft. Bidwell as well as a lot of developed farm land, where the north and eastern views encompass raw bare land which is primary public.

B. Environmental Consequences

1. Impacts of Proposed Action

The project falls in an area that has a Class II objective: "To retain the existing character of the landscape. The level of change to the characteristic landscape should be low." The proposed project will introduce minor contrasting elements of form, line, color, and texture. However the level of modification to the landscape should be low. Impacts from the proposed project will be negligible to VRM. The proposed expansion of the pit of one acre would allow the local

area that includes the mining operation to retain the existing character of the landscape. When the pit is being mined by the County, the operation would not dominate the view of a casual observer on County Road 1. The surface disturbance would not substantially change the basic elements associated with the low sparse growing vegetation. There area would continue to meet the requirements of VRM Class II.

2. Impacts of Alternative 1

Not expanding the Cowhead pit would result in the same effects to visual resources as described for the proposed action.

3. Impacts of Alternative 2 – No Action

There would be no new impacts to visual resources associated with operation of a community pit. The pit would continue to operate within the existing disturbance footprint.

3.9. Wildlife including T&E and Migratory Birds

A. Affected Environment

No T&E species are known to occur within or adjacent to the Action Area. The project area is within the Twelve Mile watershed which contains Warner Sucker, a federally threatened fish; however due to the lack of waterways to connect any water or sediment from the Cowhead pit to water that could reach Warner Sucker habitat, there would no effect from any of the Alternatives. Wildlife observed in the study area includes black-tailed jackrabbit, ground squirrel, mule deer, pronghorn antelope and sage-grouse. Habitat components immediately adjacent to the Cowhead pit are suitable for a myriad of wildlife species typical of sage-steppe environments. Mountain brush communities adjacent to the Cowhead pit offers excellent forage for big game species and nesting cover for ground and near-ground nesting birds. Migratory birds use some of the mountain brush communities adjacent to the pit for nesting and stopovers during migration however the majority of migratory birds utilize habitats at large reservoirs that are in the vicinity of the Cowhead pit and Cowhead lake, which is privately owned. The pit is within Preliminary Priority Habitat (PPH) for greater sage-grouse and the habitat directly adjacent to the pit contains all of the necessary habitat components for sage-grouse use. No surface streams or wetlands are located in or adjacent to any past or proposed future mining areas at the Cowhead pit.

B. Environmental Consequences

1. Impacts of Proposed Action

During the life of the permit, an additional one acre of wildlife habitat would be damaged due to mining activities for a total loss of 6 acres. Given the minor amount of new disturbance to vegetation and abundant undisturbed vegetation outside of the gravel pit, impacts to wildlife habitat would be minor. Equipment use of the gravel pit would be sporadic therefore noise or other direct disturbance to wildlife in the area would also be minor and spread out over time. Short term movements of big game species would occur when the pit was being mined and noise disturbance during the nesting season could result in nest abandonment by nesting birds, including greater sage-grouse. This impact is expected to be slight due to the small size of the pit and the sporadic use of the pit. The native species composition of the pit site is well represented in the region, such that loss of small amounts of habitat at this site would not greatly change the composition, abundance, or diversity of species in the region.

2. Impacts of Alternative 1

Not expanding the Cowhead pit would result in the slightly less effects to wildlife populations and habitat resources as described for the proposed action. Impacts to wildlife would therefore be expected to be the same as in the recent past and would include noise disturbances and short term movements of wildlife species away from the pit when it was actively being mined.

3. Impacts of Alternative 2 – No Action

There would be no new impacts to wildlife associated with operation of a community pit. The pit would continue to operate within the existing disturbance footprint.

3.10. Global Climate Change

A. Affected Environment

The assessment of GHG emissions and climate change remains in its formative phase. The lack of scientific tools designed to predict climate change on regional or local scales limits the ability to quantify potential future impacts of climate change on resources within the Surprise Field Office. Climate change refers to any significant change in measures of climate lasting for an extended period of time. Climate change may result from: natural processes, such as changes in the sun's intensity; natural processes within the climate system; human activities that change the atmosphere's composition and the land surface.

The earth absorbs energy from the sun, and also radiates energy back into space. Much of this energy going back to space is absorbed by gases in the atmosphere. Because the atmosphere then radiates most of this energy back to the earth's surface, our planet is warmer than it would be if the atmosphere did not contain these gases. Without this natural "greenhouse effect," temperatures would be about 60 degrees Fahrenheit, lower than they are now, and life as we know it today would not be possible (USEPA 2009a). Thus, the "greenhouse gases" (GHGs), including carbon dioxide, methane, and nitrous oxide, serve to regulate the earth's surface temperature, keeping the earth's average temperature close to 60 degrees Fahrenheit. Greenhouse gases occur both naturally and as a result of manmade activities (anthropogenic sources).

In the United States, energy-related activities account for three-quarters of human-generated greenhouse gas emissions, mostly in the form of carbon dioxide emissions from burning fossil fuels. More than half the energy-related emissions come from large stationary sources such as power plants, while about a third comes from transportation. Industrial processes (such as the production of cement, steel, and aluminum), agriculture, forestry, and waste management are also important sources of greenhouse gas emissions in the United States (USEPA 2009b). GHGs from anthropogenic sources which are of most concern include carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), sulfur hexafluoride (SF6), perfluorocarbons (PFCs), and hydrofluorocarbons (HFCs).

B. Environmental Consequences

1. Impacts of Proposed Action

The proposed action will involve some future contribution of GHGs; these contributions would not have a measurable effect due to the small amount of emission output from mining gravel for road maintenance in relation to a global climate scale that GHGs influence and act upon.

2. Impacts of Alternative 1

Alternative 2 will involve some future contribution of GHGs; these contributions would not have a measurable effect due to the small amount of emission output from mining gravel for road maintenance in relation to a global climate scale that GHGs influence and act upon. Emission output and GHGs under this alternative may be slightly higher due to Modoc County having to expend additional fossil fuels in the form of gasoline and diesel to obtain enough gravel in the current disturbance area due to no expansions being authorized.

3. Impacts of Alternative 2 – No Action

The no action alternative may reduce locally produced GHG emissions from vehicle emissions; however, this level of reduction is likely to be minute and practically un-measureable at both the local and global scales.

This page intentionally
left blank

Chapter 4. OVERALL CUMULATIVE IMPACTS

This page intentionally
left blank

Cumulative impacts are the "incremental impacts of a proposal when added to other past, present, and reasonably foreseeable future actions, regardless of which agency or person undertakes them" (40 Code of Federal Regulations 1508.7)

Potential cumulative impacts are assessed at the resource level. The cumulative effects analysis area (CEAA) for past, present, and reasonably foreseeable future activities (RFFAs) that may generate cumulative impacts varies depending on the resource under consideration. For example, the CEAA for socioeconomics is regional in nature; therefore, the scope of activities considered is necessarily broad. In contrast, the CEAA for wildlife is the area specifically associated with the Proposed Action and alternatives; therefore, the scope of potential cumulative activities considered is much narrower. Past, present, and reasonably foreseeable future actions are analyzed to the extent that they are relevant and useful in analyzing whether the reasonably foreseeable effects of the Proposed Action and Alternatives may have an additive and significant relationship to those effects.

The areas discussed in this EA have been and are being impacted to some degree by various actions, including but not limited to road construction, land clearing, sand and gravel mining, and recreational activities. The present condition of resources analyzed in this document indicates the level of past impacts from all land use activities.

This CEAA covers approximately two counties, Washoe County, Nevada and Modoc County, California. This CEAA is fairly large and the BLM decided to look at the surrounding communities within a 50 mile radius of the projects. The CEAA includes approximately population of 5,000 individuals, 15 established communities and over 500,000 acres of public lands. In these communities the primary economic and recreational activities include: ranching, tourism, outdoor recreation and public services (fuel, food, and lodging).

Timeframe of Effects

Since the life of an EA is generally 10 years, this time frame is considered to be most appropriate for considering the incremental effect of reasonably foreseeable future actions. Many of the past and present actions discussed above are expected to persist through this time frame, though the relative intensity of these actions could vary depending on a variety of economic factors.

Past Actions

The Modoc County gravel pit authorizations have been occurring since the 1980's. Prior to that the BLM lands were open to mineral entry and considered bare land. The pits boundaries and areas were all analyzed under an environmental analysis when the pits were established in the 1980's. Since the pits were authorized the areas have been used as sand and gravel mines for the extraction of materials for road maintenance. Dispersed recreation also occurs on these pits. General activities include: rock hounding, hunting, off-highway vehicle (OHV) use, and camping. The BLM permits non-commercial and commercial recreation events through its Special Recreation Permit program. These areas are "open and unlimited use" area for travel management. Although most vehicle use occurs on existing two-track trails and dirt roads, OHV use is permitted. Actual number of users per day or per year is not available, but the intensity of recreational use is generally concentrated within the pit boundaries. Most recreation use occurs during the summer, spring and fall, and associated with hunting activities. In the past BLM has authorized 3 free-use permit authorizations to Modoc County serving nearly 350 miles of roads

Present Actions

Modoc County currently holds an expired Free-Use permit for the pit. BLM holds Community pit authorizations on the pit. This pit is open to the public to purchase and extract sand and gravel from. The pit is currently a vital source to the road maintenance in Modoc County. Modoc County also operates two other pits within the CEAA and holds one other Free-Use permit.

Reasonably Foreseeable Actions

Modoc Country would continue to utilize the 10 year free-use permit authorizations for two separate pits and operate one other private pit since majority of the roads in northern Modoc County are gravel. BLM would continue to keep the existing community pits open to the public. The Cowhead pit would be expanded to the marked pit boundaries and if closed or relinquished the pits would be reclaimed in accordance to the existing reclamation plan or left open if BLM needs the gravel.

As described in Past and Present Actions, dispersed recreation is likely to continue in the future, but it is anticipated to increase due to the construction of new recreation facilities.

4.1. Air Quality

The proposed action would not measurable impact air quality beyond localized areas immediately adjacent to the pits. There would be no negative cumulative effects to Air Quality as a result of the proposed action.

4.2. Cultural Resources

Since there are no archaeological sites located within the proposed project area there will be no cumulative effects to Cultural Resources.

4.3. Invasive, Non-native Species

Due to the size of the proposed pits and expansions areas and no large noxious weed invasions in the areas surrounding the pits, there are no significant individual or cumulative effects anticipated as a result of the proposed action.

4.4. Soils

Removal of soils as a result of mining gravel in pits would have minor negative effects on soils however due to the amount of soils loss under the proposed action there are no significant individual or cumulative effects anticipated as a result of the proposed action. Soils would be stockpiled and replaced during reclamation. Some loss would occur but not at a significant measurable effect.

4.5. Social and Economic Values

The proposed action would improve the roads in the county. There would be no negative cumulative effects to Social and Economic Values. Impacts would be positive since the roads would continue to stay improved allowing for adequate transportation for visitors and residents.

4.6. Vegetation

Removal of vegetation as a result of mining gravel in pits would have minor negative effects on vegetation however due to the small amount of vegetation loss under the proposed action (approximately one acre) there are no significant individual or cumulative effects anticipated as a result of the proposed action.

4.7. Visual Resources

The proposed action would introduce contrasting elements of form, line, color, and texture. These elements may be very subordinate and un-noticeable to the casual observer. The pits have all been established for the last 15 years and continued use would have low impacts to the visual resource management objectives. Impacts from the proposed action would be negligible to VRM.

4.8. Wildlife

Removal of habitat would have a minor effect on wildlife and sage-grouse PPH habitat. Wildlife could be dispersed and displaced from the area however due to the small size of the proposed pits and expansion areas there are no significant individual or cumulative effects anticipated as a result of the proposed action.

4.9. Global Climate Change

The proposed action would introduce factors that could influence climate change. However these contributions would not have a noticeable or measurable effect, independently or cumulatively, on a phenomenon occurring at the global scale believed to be due to more than a century of human activities.

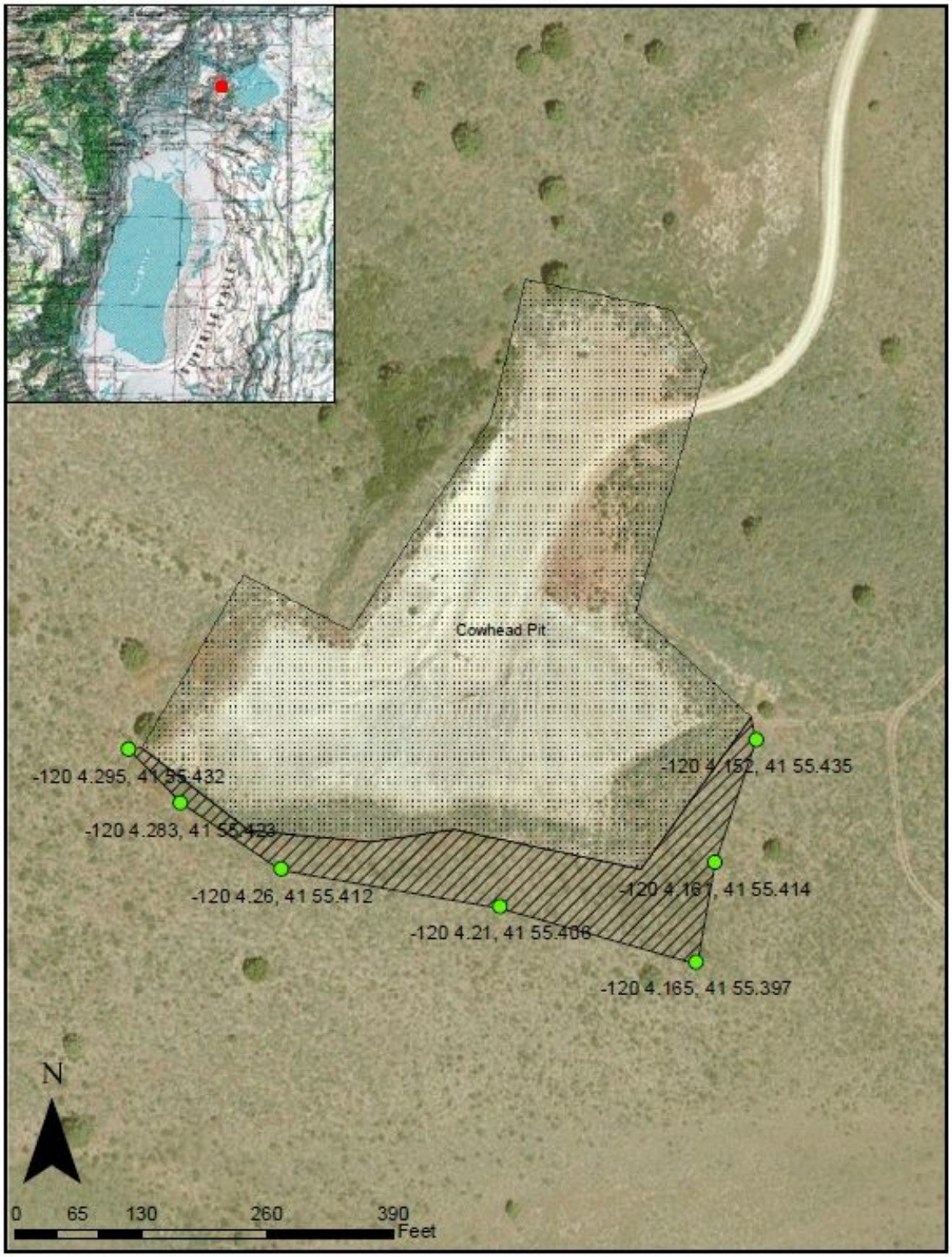
This page intentionally
left blank

Chapter 5. Map

This page intentionally
left blank

Modoc County Free-Use Permit

Cowhead Pit



Expansion Area

Gravel Pit Boundary

BUREAU OF LAND MANAGEMENT
Surprise Field Office
Cedarville, California
(530) 279-6101
www.ca.blm.gov/surprise
Date Prepared: 8/15/2012
Project: Map

This page intentionally
left blank

Chapter 6. List of Preparers

This page intentionally
left blank

Table 6.1. List of Preparers

Name	Resource/Activities	Project Role
Dan Ryan	**Recreation/Minerals/ Socioeconomics/ VRM**	**EA Preparer Project Lead** **Interdisciplinary Team**
Elias Flores & Scott Soletti	**Wildlife/ Fauna and Flora T&E/Migratory Birds/Noxious Weeds/Vegetation/Air Quality/Global Climate Change**	**EA Preparer** **Interdisciplinary Team**
Jen Rovanpera/ Julie Rodman	**Cultural/Paleontological Resources/Native American Religious Concerns**	**EA Preparer** **Interdisciplinary Team**
Alexandra Urza	**NEPA Coordinator/Wilderness**	**EA Preparer** **Interdisciplinary Team**
Steve Surian	**Livestock / Soils**	**EA Preparer** **Interdisciplinary Team**
Roger Farschon	**Ecology**	**EA Preparer** **Interdisciplinary Team**

This page intentionally
left blank

Appendix A. SPECIAL STIPULATIONS

Mitigation Measures: Air Quality

Modoc County shall reduce dust emissions at the gravel pits by incorporating the use of a water truck in the mining plan. A water truck and operator shall be kept on site during all dry-weather mining activity. Extraction areas and stockpiles of dust producing materials shall be kept damp via regular watering to reduce fugitive dust emissions. Wetting of dirt and gravel haul roads would reduce dust production during episodes of dry weather hauling operations.

Mitigation Measures: Cultural

Should any Cultural Resources be encountered during mining activities, work shall be suspended and the BLM cultural resources specialist shall be immediately notified. At that time, BLM would coordinate any necessary investigations to determine the significance of the discovery. The BLM shall then coordinate with the County to implement any mitigation measures deemed necessary for protection of Cultural Resources.

Mitigation Measures: Paleontological

Should any paleontological resources be encountered during mining activities, work shall be suspended and the BLM cultural resources specialist shall be immediately notified. At that time, BLM would coordinate any necessary investigations to determine the significance of the discovery. The BLM shall then coordinate with the County to implement any mitigation measures deemed necessary for protection of the paleontological resources.